

REMARKS

Claims 7-22 were pending in this application. Claims 7-11 and 13-19 were withdrawn from consideration. By this amendment, claims 23-32 have been added. Claims 7-11, 13-19, and 21 have been cancelled without prejudice or disclaimer to the subject matter therein. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 12 and 22 stand rejected under 35 U.S.C. 102(e) as being anticipated by United States Application Publication 2001/0045826 (“Schneider”). Claim 20 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider in view of United States Patent No. 6,636,757 (“Jascob”). The Applicants respectfully traverse these rejections at least for the reasons set forth below.

The Applicants first turn to the rejection of claims 12 and 22 as being anticipated by Schneider. Schneider discloses a “distortion immune tablet (20) for a position and orientation system (22).” Schneider at Abstract. The “tablet includes a plurality of magnetic field generators (40)....” *Id.* The tablet 20 includes a magnetic layer 60. *See id.* at Para. [0030] (“tablet 20 also includes a layer of magnetic material 60 positioned beneath insulator 50, if provided.”).

Magnetic layer 60 is preferably sized to cover the entire distorter 30 adjacent to which it will be used, or at least that portion of the distorter capable of intermittently distorting field 28.

Id at Para. [0030]. Further,

Distorters 30 may include, for example, the steel frame of an examination table, magnetic fields created by electrical conductors carrying alternating current, and concrete floors, walls, ceilings or other structures containing rebar.

Id. at Para. [0026].

Schneider describes the operation of its processor as follows:

For a more detailed description of a suitable processor 24 and sensor 26, and the operation of the same, attention is direction (sic) to pending U.S. application Ser. No. 09/370,208 to Schneider entitled Position and Orientation Measuring With Magnetic Fields, the contents of which are incorporated by reference. This application is referred to herein as the '208 application.

Id. at Para. [0049].

In operating system 22, distorted fields 28 (i.e., distorted by tablet 20) from generators 40 are measured on a three-dimensional grid above the field generator. This data is then processed to produce position and orientation information relative to sensor 26. In the technique of the '208 application, this data is processed to produce a three-dimensional curve fit. **The curve fit replaces the numerous mathematical descriptions (models) of different field generators used by other practitioners in the art. Since the curve fit is not based on a model, but purely on actual measured data, warped, atypical fields, such as those produced by tablet 20 can be accommodated.**

Id. at Para. [0050] (emphasis added). As shown above, Schneider actually teaches away from a “processor modeling... the generating unit,” as recited in claim 12 of the present application. Further, Schneider simply does not teach, nor suggest, a “processor modeling the distorter and generating and sensing units,” as recited in claim 12 of the present application. Thus, at least for this reason, claims 12, and 20-22 should be in condition for allowance.

The Applicants also note that Schneider does not necessarily teach or suggest a moveable field generating unit or a field sensing unit. Schneider discloses that the field generators 40 are mounted on the tablet 20. *See id.* at Para. [0027]. While Schneider discloses that the field

generators may rotate or vibrate, it does not necessarily teach or suggest a field generating unit or a sensing unit that is moveable.

Additionally, the passage of Schneider that the Office Action cites to reject claim 22 (i.e., Para. [0054]) seemingly teaches away from a processor that “uses an integral method of correction to compensate for distortion caused by said distorter.” In particular, this passage discloses the following:

When processor 24 operates as described in U.S patent application Ser. No. 09/370,208, as a consequence of the immunity tablet 20 provides it become **unnecessary to perform correction of position and orientation information developed by system 22 such as is done with prior art system. Such correction is inherently difficult to accurately and consistently generate for a wide range of distorters 30 adjacent to which a position and orientation system may be used**

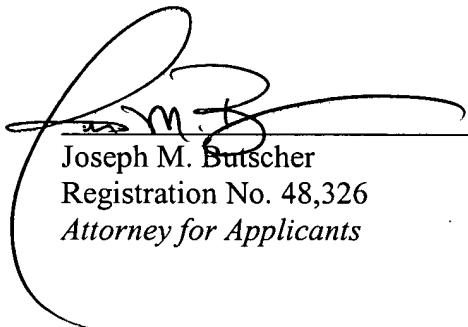
Id. at Para. [0054] (emphasis added).

The Applicants now turn to the rejection of claim 20 as being unpatentable over Schneider in view of Jascob. The Applicants respectfully submit that claim 20 is in condition for allowance at least for the reasons discussed above.

The Office Action also indicated that claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. New claim 24 has been and recites the limitations of claim 21 in independent form. As such, claim 21 has been cancelled without prejudice or disclaimer to the subject matter therein. The remaining newly added claims are also believed to be in condition for allowance.

If the Examiner has any questions or the Applicants can be of any assistance, the Examiner is invited to contact the Applicants. No fee is believed due with respect to the newly added claims due to the fact that the total number of pending claims does not exceed 20, and the total number of independent claims does not exceed 3. The Commissioner, however, is authorized to charge any necessary fees or credit any overpayment to Account No. 07-0845.

Respectfully submitted,



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